

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Preparation for International
Telecommunication Union World
Radiocommunication Conferences

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IC Docket No. 94-31

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FEDERAL COMMUNICATIONS COMMISSION
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REPLY COMMENTS OF TELEDESIC CORPORATION

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SUMMARY

Teledesic Corporation ("Teledesic"), respectfully submits reply comments in the above-captioned proceeding. In the Second Notice of Inquiry ("Second NOI"), the FCC seeks comment on its preliminary proposals for the 1995 World Radiocommunication Conference ("WRC-95") and future World Radiocommunication Conferences ("WRCs") including the 1997 World Radiocommunication Conference ("WRC-97").

It is essential that the United States adopt a position at WRC-95 for the allocation of spectrum in the 17.7 - 20.2 GHz and 27.5 - 30.0 GHz bands (collectively, the "Ka band") for mobile satellite service ("MSS") feeder links that will accommodate all proposed non-geostationary ("non-GSO") satellite systems in the Ka band. If sufficient spectrum in the Ka band is not allocated at WRC-95 to accommodate the requirements of Teledesic and the MSS feeder links of the other non-GSO satellite systems proposed in the Ka band, the random deployment of GSO satellite networks between now and WRC-97 will effectively preclude the ability of the United States at future WRCs to establish an adequate allocation of spectrum at the Ka band on a primary basis for non-GSO satellite networks. In addition, to the extent that the Commission seeks additional spectrum for MSS at this or future WRCs, it should heed the lessons of WRC-93 and include the allocation of associated feeder link spectrum.

- o WRC-95 Agenda item 2.1(c) requires that feeder links for MSS systems in all frequency bands be included in deliberations at WRC-95.
- o Teledesic's proposed MSS feeder link use and its spectrum requirements must be accommodated on the same basis as those of other United States companies seeking spectrum in the Ka band for their MSS feeder links.
- o WRC-95 Agenda item 2.1(c) also states that "due regard" must be given "to existing services to which the frequency spectrum to be considered by the Conference is also allocated." This mandate of the Conference reaffirms that the only approach for the participants of WRC-95 to make an informed decision on the amount and location of spectrum for MSS feeder links is to consider all proposed uses of the band under consideration, including in the Ka band.
- o Foreign delegations to the 1995 Conference Preparatory Meeting ("CPM") made clear that WRC-95 is the appropriate forum in which to focus on allocations for and regulatory aspects of non-GSO satellite systems.
- o As demonstrated by the comments submitted in this proceeding, any attempt to modify the existing spectrum allocation order to accommodate GSO and non-GSO systems in the same way in all bands inevitably will be unsatisfactory to all concerned.

- o Action is required at WRC-95 to accommodate MSS feeder links because they are non-GSO systems, not because they are MSS systems. Both MSS and fixed satellite service ("FSS") allocations already exist in the Ka band. What does not exist is an allocation of spectrum at the Ka band for the operation of non-GSO satellite networks on a primary basis.
- o The solution to the incompatibility problem is to leave the existing GSO satellite regulatory regime in place in bands where GSO satellite systems will be accorded primary status, and allocate separate bands where non-GSO systems will be treated as primary.
- o Radio Regulation 2613 would not be applied to the frequencies designated for non-GSO satellite networks at the Ka band. New GSO satellite systems would be prohibited from interfering with non-GSO satellite networks in the Ka band and would not be entitled to claim protection from interference from the non-GSO systems.
- o Teledesic urges the FCC to adopt a proposal to establish a minimum allocation for non-GSO satellite networks with sufficient spectrum in each direction in the Ka band to accommodate all proposed non-GSO satellite stations in these bands, including "MSS" systems like those proposed by Motorola, TRW and Teledesic.
- o For the United States to be effective in securing an adequate allocation of spectrum for non-GSO systems at WRC-95, it must conclude its deliberations concerning the domestic use of the 27.5 -29.5 GHz band ("the 28 GHz band") prior to commencement of the Conference.
- o As Teledesic and numerous other parties have made clear in response to Amendment of Parts 2 and 15 of the Commission's Rules to Permit Use of Radio Frequencies Above 40 GHz for New Radio Applications, ("40 GHz NPRM"), the optimum resolution of this issue is to designate the 40.5 - 42.5 GHz ("41 GHz") band in lieu of the Ka band for LMDS and preserve the Ka band for FSS. Such an approach will create a win-win solution for all affected parties.

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REPLY COMMENTS OF TELEDÉSIC CORPORATION

To: The Commission

I. INTRODUCTION

Teledesic Corporation ("Teledesic"), by its attorneys, pursuant to Sections 1.430 and 1.415 of the rules and regulations of the Federal Communications Commission ("FCC" or "Commission"), 47 C.F.R. §§ 1.430 and 1.415, respectfully submits reply comments in the above-captioned proceeding. In the Second Notice of Inquiry ("Second NOI"), FCC No. 95-36, IC Docket No. 94-31, 60 Fed. Reg. 8994 (1995), the FCC seeks comment on its preliminary proposals for the 1995 World Radiocommunication Conference ("WRC-95") and future World Radiocommunication Conferences ("WRCs") including the 1997 World Radiocommunication Conference ("WRC-97"). These proposals include accommodating mobile satellite service ("MSS") feeder links in spectrum allocated to the fixed satellite service ("FSS") as well as proposals to modify Radio Regulation 2613 ("RR 2613") to eliminate the disadvantage placed on non-geostationary ("non-GSO") FSS and MSS systems by the current interpretation of RR 2613. Second Notice, at 19.

As Teledesic demonstrated in its comments, it is essential that the United States adopt a position at WRC-95 for the allocation of spectrum in the 17.7 - 20.2 GHz and 27.5 - 30.0 GHz bands (collectively, the "Ka band") for MSS feeder links that will accommodate all proposed non-GSO satellite systems. The best way to accomplish this objective is by a separate allocation of Ka band spectrum on a primary basis for non-GSO satellite systems. Presently, three non-GSO satellite systems, proposed by Teledesic, Motorola Satellite Communications, Inc. ("Motorola") and TRW Inc. ("TRW") have applied for spectrum in the Ka band for MSS feeder links.¹ In the absence of any definitive information indicating that sharing is possible among the three non-GSO MSS feeder links uses proposed in the Ka band, the FCC must seek at WRC-95 the minimum 1000 MHz Ka band allocation (in each direction) necessary to accommodate all non-GSO MSS feeder link uses proposed in the Ka band. Only if the FCC has such definitive information that all three non-GSO systems can share with each other in the Ka band, then the United States should reduce its minimum Ka band spectrum allocation request to 500 MHz (in each direction).²

¹ Iridium and Motorola apparently misconstrue the FCC's action in Motorola Satellite Communications, Inc., 9-DSS-P-91, DA 95-131 (released Jan. 31, 1995) ("Motorola Order") in their comments. Iridium and Motorola state that "[o]n January 31, 1995, Motorola received authority to construct, launch and operate the Iridium low-earth-orbit ("LEO") satellite system, which will provide mobile-satellite service ("MSS") using MSS spectrum in the 1610-1626.5 MHz band, combined with FSS spectrum in the 29.0-29.5 and 19.2-19.7 GHz bands for its feeder links." Iridium Comments, at 5-6; Motorola Comments, at 1-2. However, the FCC in the Motorola Order simply authorized Motorola "to construct, at its own risk, a mobile satellite system capable of operating with feeder links in the" 19.4 - 19.6 GHz and 29.1 - 29.3 GHz bands. Motorola Order, at 11. The FCC noted that "we are not in a position to assign specific feeder link spectrum unconditionally to any Big LEO licensee." Id. at 8 (footnote omitted).

² Table 1 of the Second NOI, entitled, "Current Estimates for Feeder Link Spectrum Requirements for First Generation NGSO MSS Systems in the 1-3 GHz band" should be amended to include the feeder link requirements of all MSS systems, including Teledesic. Second NOI, at 24; see also id. at 22, n.72. In the 16 - 30 GHz frequency range, the Teledesic network requires an additional 400 MHz in each direction at the 28.6 - 29.0 GHz band (Earth-to-space) and the 18.8 - 19.2 GHz band (space-to-Earth).

If sufficient spectrum in the Ka band is not allocated at WRC-95 to accommodate the requirements of Teledesic and the MSS feeder links of the other non-GSO satellite systems proposed in the Ka band, the random deployment of GSO satellite networks between now and WRC-97 will effectively preclude the United States at future WRCs from proposing an adequate allocation of spectrum at the Ka band on a primary basis for non-GSO satellite networks.³

In addition to securing spectrum at WRC-95 for all non-GSO systems currently proposed in the Ka band, to the extent that the Commission seeks additional spectrum for MSS at this or future WRCs, it should heed the lessons of WRC-93. WRC-93 allocated spectrum at 1- 3 GHz for MSS, but it neglected to allocate associated feeder link spectrum. As a result, this issue will be considered and debated at WRC-95. Any proposals the FCC advocates at WRC-95 or any future WRC to allocate additional spectrum to the MSS must include the allocation of associated feeder link spectrum.

³ As demonstrated by recent filings at the International Telecommunications Union ("ITU"), this is a very real threat. On the ITU Space Network List there are 149 satellites from 13 administrations listed for operation in the Ka band. Out of these 149, 50 satellites are at the advanced publication stage, 66 are under coordination and 33 have been notified under Article 13. Radio Regulation 1496 states that "[f]or a frequency assignment to an earth or space station, each notice shall be submitted in order to reach the Board not earlier than three years before the date on which the assignment is to be brought into use." Thus, the presumption is that the 33 notified Ka band space stations are either now operational, or will be operational by year end 1997. See Notified Ka Band Space Stations (attached hereto as Appendix A).

II. DISCUSSION

A. Teledesic's Spectrum Requirements In The Ka Band Must Be Included In The United States Proposal For The Allocation Of MSS Feeder Links

The FCC must include Teledesic's spectrum requirements in its proposal for the allocation of MSS feeder link spectrum in the Ka band at WRC-95. The objections of TRW,⁴ Motorola and Iridium, Inc. ("Iridium") to the consideration of non-GSO frequency allocations are self-serving and short-sighted.⁵ See TRW Comments, at n.23; Iridium Comments, at 25; Motorola Comments at 13. WRC-95 Agenda item 2.1(c) states that WRC-95 shall "consider allocations and regulatory aspects for feeder links for the mobile-satellite services taking account of the interference that may be caused to satellite systems in the geostationary-satellite orbit." 1995 WRC Agenda. This Agenda item requires that feeder links for MSS systems in all frequency bands be included in deliberations at WRC-95. Teledesic's global non-GSO satellite network employs MSS feeder links; therefore, its spectrum requirements must be considered in any WRC-95 deliberations on feeder link allocations. See Teledesic Amendment.

⁴ TRW misleadingly argues that Teledesic's spectrum requirements at the Ka band should not be considered because its application has not been accepted for filing. TRW Comments, at 13. Contrary to TRW's allegations, Teledesic's proposal is entitled to the same consideration as TRW's proposal for its MSS system. Teledesic's application has been pending at the FCC for over one year and its Appendix 4 has been forwarded to the International Telecommunications Union by the FCC for purposes of international notification, advanced publication and coordination.

⁵ TRW summarily asserts that the Teledesic system does not include MSS feeder links. TRW Comments, at 13, n.23. To the contrary, Teledesic has proposed MSS feeder links that will operate in the Ka band. On December 30, 1994, Teledesic filed an amendment to its Application requesting 100 MHz of spectrum for MSS. See Amendment of Teledesic Corporation For Authority to Construct, Launch, and Operate a Low Earth Orbit Satellite System in the Domestic and International Fixed Satellite Service, File No. 22-DSS-P/LA-94 (filed Dec. 30, 1994) ("Teledesic Amendment"). The Teledesic system provides a potential capacity equivalent to 25,000 simultaneous T1s or equivalent combinations of low-Earth channel rates to mobile users using 100 MHz of spectrum in the MSS portion of the Ka band. Teledesic's standard terminal and gigabit FSS links serve as the feeder links for the MSS service links.

Teledesic's proposed MSS feeder link use and its spectrum requirements must be accommodated on the same basis as those of other United States companies seeking spectrum in the Ka band for their MSS feeder links.⁶ It would be arbitrary and discriminatory for the FCC and the United States to advance a proposal at WRC-95 for a MSS feeder link allocation that would be inadequate to accommodate one MSS feeder link proponent while accommodating all other proponents, as Motorola and Iridium argue. Equally important, by failing to ensure that a sufficient spectrum allocation exists for all proposed users of the Ka band, such an action would effectively prejudice the outcome of domestic proceedings involving the licensing of the Ka band to various satellite proponents.

Teledesic also takes issue with Motorola's and Iridium's interpretation of Agenda item 2.1(c). Without support, these parties boldly assert that Agenda item 2.1(c) should be interpreted to include only consideration of spectrum for feeder links of MSS systems operating between 1 - 3 GHz. Iridium Comments, at 25-26; Motorola Comments, at 13-14. There is no indication in the WRC-95 Agenda that this item should be read in such a limited manner. To the contrary, the plain language of Agenda item 2.1(c) contains a cross-reference to paragraph 2.1 of the Agenda, which states that the WRC should consider allocations and

⁶ Motorola and Iridium argue that WRC-95 should not consider non-GSO FSS issues because these issues were never "fully vetted nationally or in ITU Study Group 4." Motorola Comments, at 14; Iridium Comments, at 26. This is incorrect. Teledesic has technical papers and submitted studies on non-GSO FSS issues internationally in Working Party 4-9S, Working Party 4A, Task Group 4/5, Working Party 4B, and the 1995 Conference Preparatory Meeting. Additionally, Teledesic has submitted studies on non-GSO issues domestically in Informal Working Groups 1, 4, 5 and 6 of the Industry Advisory Committee and at domestic Working Party 4-9S, Working Party 4A, Task Group 4/5 and Working Party 4B meetings. Major papers have focused on the Teledesic system characteristics and sharing analyses with the Iridium, Spaceway and Odyssey systems. See e.g., Co-Directional Frequency Sharing Between NGSO MSS Feeder Links and NGSO Satellite Systems (FSS and MSS, Service and Feeder Links) in the 30/20 GHz Band, (Jan. 18, 1995); Co-Directional Frequency Sharing Between MSS Feeder Links of NGSO-MEO System and NGSO Satellite Systems (FSS and MSS, Service and Feeder Links) in the 30/20 GHz Band (April 12, 1995) (attached hereto as Appendix B).

regulatory provisions concerning feeder links, "with a view to facilitating the use of **frequency bands allocated to the mobile-satellite services** with due regard to existing services to which the frequency spectrum to be considered is also allocated". WRC-95 Agenda (emphasis added). There is no statement or other indication that Agenda item 2.1(a), which provides that the Conference is to "review the technical constraints associated with the frequency bands allocated below 3 GHz to mobile-satellite services and associated provisions, resolutions and recommendations," should be interpreted as a limit on the scope of the broader Agenda item 2.1(c). 1995 WRC Agenda. Motorola and Iridium misconstrue footnote 13 of the Second NOI in an effort to buttress their predictable assertion that the FCC should only consider the spectrum requirements of TRW and Iridium in crafting its position on a spectrum allocation for MSS feeder links. What Motorola and Iridium fail to acknowledge is that the FCC is not limiting its consideration of MSS feeder links only to MSS systems that operate below 3 GHz in furtherance of its position on Agenda item 2.1(c), but intends to address the requirements of all MSS systems. See Second NOI, at 23, n.74; see e.g., id. at 19, et. seq.

Even assuming, as Motorola and Iridium argue, that WRC-95 Agenda item 2.1(c) applies solely to MSS at 1 - 3 GHz, this Agenda item also states that "due regard" must be given "to existing services to which the frequency spectrum to be considered by the Conference is also allocated." 1995 WRC Agenda. This mandate of the Conference reaffirms that the only approach for the participants of WRC-95 to make an informed decision on the amount and location of spectrum for MSS feeder links is to consider all proposed uses of the band under consideration, including in the Ka band. The Commission would be committing an irreversible error by excluding from consideration any proposed user of the Ka band when

allocating additional spectrum to MSS feeder links at WRC-95. Ignoring other proposed uses of the Ka band not only would prejudice the outcome of pending domestic proceedings, but would unduly discriminate against one class of satellite entities in favor of another class. Because any action at WRC-95 on the allocation of spectrum in the Ka band will directly effect Teledesic's plan to provide MSS and FSS globally using the Ka band, Teledesic has a direct stake in the resolution of the MSS feeder link allocation issue at WRC-95.

Additionally, foreign delegations to the 1995 Conference Preparatory Meeting ("CPM") made clear that WRC-95 is the appropriate forum in which to focus on allocations for and regulatory aspects of non-GSO satellite systems. In fact, there was little discussion in favor of focusing WRC-97 on non-GSO issues because WRC-95 is supposed to be the forum for resolving these issues. Hence, the FCC must ensure that its proposals for WRC-95 take into account the requirements of all non-GSO systems, including all of those proposed in the Ka band. Therefore, Teledesic strongly urges that its proposed use of the Ka band, as well as that of other U.S. companies, be considered at WRC-95. At a minimum, such a result is clearly contemplated by Agenda item 2.1(c).

B. The United States Proposal To Accommodate The Requirements Of MSS Feeder Links Should Be A Primary Non-GSO Satellite Allocation In The Ka Band

As demonstrated by the comments submitted in this proceeding, any attempt to modify the existing spectrum allocation order to accommodate GSO and non-GSO systems in the same way in all bands inevitably will be unsatisfactory to all concerned. See Second NOI, at 19-23; see also GE American Communications, Inc. Comments, at 2-6 ("GE American"); Hughes Comments, at 6-15. The solution, therefore, is to leave the existing GSO satellite

regulatory regime in place in bands where GSO satellite systems will be accorded primary status through application of RR 2613 and allocate separate bands where non-GSO systems will be treated as primary. While such an approach may not be feasible in bands already congested with GSO satellite systems, it is a simple and practical solution in the higher frequencies, such as the Ka band, that are the frontier for broadband satellite systems and remain essentially unoccupied. Therefore, the FCC should adopt a proposal that will permit separate allocations in the Ka band to be created for the two types of satellite systems, i.e., GSO and non-GSO, within which each would be primary with its own set of rules optimized for its own distinct system characteristics.

1. The Proposals Advocated by Iridium, Motorola and TRW Fail To Take Into Account All Proposed Uses Of The Ka Band

As Teledesic explained in its comments, RR 2613 seeks to protect GSO satellites from unacceptable interference caused by space radiocommunications services using non-GSO satellite systems. However, no similar restriction is placed on GSO satellites in the case of interference to a non-GSO system. Hence, as the Commission correctly recognizes, RR 2613 subjects non-GSO systems to unbounded regulatory uncertainty, as their operation would be vulnerable to preemption by any and all GSO satellite networks, even those deployed long after the non-GSO system. See Second NOI, at 19 and 23, n. 74. That unbounded regulatory uncertainty would prevent any non-GSO system of any significant scope from ever being deployed in bands to which RR 2613 applies. Clearly, RR 2613 places non-GSO satellite systems, including MSS feeder link networks, at a decided disadvantage. Second NOI, at 19.

As a potential solution, TRW, Iridium and Motorola advocate adoption of a proposal for WRC-95 whereby RR 2613 would not be applied in the Ka band when non-GSO MSS

feeder links operate in the opposite direction of transmission from GSO FSS uses. Motorola Comments, at 11-12; Iridium Comments, at 22-23; TRW Comments, at 15-17. Under this approach, existing GSO systems would have equal status with non-GSO systems in these specific bands, but future GSO systems would need to protect non-GSO MSS feeder links in certain portions of the Ka band.⁷ However, the TRW, Motorola and Iridium approach only attempts to remedy the problems associated with RR 2613 for one small subset of non-GSO system operations proposed in the Ka band -- non-GSO MSS feeder links. Teledesic believes that it would be inequitable, inefficient and discriminatory for the FCC to adopt such a proposal, which, in essence, would ensure that other types of non-GSO FSS uses of the Ka band would continue to be preempted by RR 2613. Action is required at WRC-95 to accommodate MSS feeder links because they are a form of non-GSO system operation and not because they are a form of MSS operation. In fact, MSS feeder links are a form of FSS. Both MSS and FSS allocations already exist in the Ka band. What does not exist is an allocation of spectrum at the Ka band for the operation of non-GSO satellite networks on a primary basis. It is essential that a non-GSO satellite allocation be adopted at WRC-95 in order to accommodate all authorized and proposed non-GSO satellite systems that otherwise would be precluded from operation in the Ka band by reason of RR 2613.

Therefore, Teledesic urges the FCC to adopt a proposal to establish a minimum allocation for non-GSO satellite networks with sufficient spectrum in each direction in the Ka

⁷ TRW differs with Iridium and Motorola on the specific bands to which this approach would be applied. While all three parties support allocating spectrum to non-GSO MSS feeder links on a primary basis at 19.2 - 19.7 GHz, Motorola argues that the only other portion of the band where this approach should be applied is the 29.0 - 29.5 GHz band, while TRW argues for extension of the allocation to the 29.0 - 30.0. GHz band. See Motorola Comments, at 11-12; Iridium Comments, at 22-23; TRW Comments, at 15; see also Hughes Comments, at 15. Teledesic urges the FCC not to exclude consideration of any specific portion of the Ka band.

band to accommodate all proposed non-GSO satellite stations in these bands, including "MSS" systems like those proposed by Motorola, TRW and Teledesic. The solution to the incompatibility problem is to leave the existing GSO satellite regulatory regime in place in bands where GSO satellite systems will be accorded primary status, and allocate separate bands where non-GSO systems will be treated as primary.⁸

2. A Primary Non-GSO Satellite Allocation Would Satisfy the Concerns of GSO Proponents

Two GSO satellite system operators, GE American and Hughes Space and Communications Company and Hughes Communications Galaxy, Inc. (collectively "Hughes"), argue that relaxing RR 2613 in bands where GSO FSS and MSS feeder links operate could interfere with the operation of GSO FSS satellites. GE American Comments, at 2 and 5; see also Hughes Comments, at 10-15. As a remedy, both recommend preserving the status quo, i.e., RR 2613, and only authorizing spectrum in the Ka band to non-GSO satellite systems on a secondary basis. GE American Comments, at 5; see also Hughes Comments, at 10. As an

⁸ In those bands Teledesic recommends adoption of the following footnote language to accomplish these objectives:

ADD 872A The frequencies in the band [ZZ.Z] GHz are primarily for use by Non-GSO networks in the space-to-Earth direction. Such use is subject to the application of the coordination and notification procedures set forth in Resolution 46. The provisions of RR 2613 do not apply. Stations of GSO fixed satellite service networks brought into use in the band [ZZ.Z] GHz after November xx, 1995 shall not claim protection from and shall not cause harmful interference to Non-GSO networks in this band.

ADD 882H The frequencies in the band [YY.Y] GHz are primarily for use by Non-GSO networks in the Earth-to-space direction. Such use is subject to the application of the coordination and notification procedures set forth in Resolution 46. The provisions of RR 2613 do not apply. Stations of GSO fixed satellite service networks brought into use in the band [YY.Y] GHz after November xx, 1995 shall not claim protection from and shall not cause harmful interference to Non-GSO networks in this band.

alternative, Hughes recommends the imposition of operational constraints on non-GSO systems.⁹ See Hughes Comments at 6-15.

Both of these approaches are severely flawed. The first, preserving the status quo, will make it impossible, because of the regulatory uncertainties associated with RR 2613, for non-GSO systems ever to be deployed globally in the same frequency bands where GSO systems are permitted to operate under the protection of RR 2613. As GE American notes, "operation of non-geostationary FSS Teledesic is probably incompatible with operation of geostationary FSS, which may result in some band segmentation or use of RR 2613 with respect to Teledesic. And ... it is highly unlikely that ... Motorola or TRW can coexist in this band on a frequency basis without the requirements of RR 2613." GE American Comments, at 5. Therefore, at least one GSO proponent has already concluded that it will use RR 2613 to ensure that non-GSO satellite systems, including MSS feeder links, are required to cease operations in the Ka band.

The second approach is equally problematic. First, adoption of operational constraints on non-GSO systems would be unduly complicated, especially since there currently is no evidence demonstrating that non-GSO and GSO systems can share the Ka band on a co-frequency basis. See e.g., GE American Comments, at 5; Motorola Comments, at 12, n.8; Iridium Comments, at 23, n.3. Additionally, this approach would only address a small part of the problem -- coordination between non-GSO MSS feeder links and GSO systems. More importantly, it fails to address the appropriate procedures for coordinating GSO and non-GSO

⁹ Under this approach, a footnote that refers to generic sharing criteria and an applicable MSS feeder link coordination procedure in appropriate sized uplink and downlink sub-bands would be adopted. Hughes Comments, at 12.

satellite systems, both MSS and FSS. Since the Hughes' proposal only addresses operational constraints on the operation of GSO FSS and non-GSO MSS feeder links, it continues to leave other non-GSO uses of the Ka band subject to the regulatory uncertainties associated with RR 2613.

On the other hand, Teledesic's proposed approach is a simple and practical solution for the Ka band.¹⁰ In fact, such an approach would ensure that non-GSO systems do not operate to the detriment of GSO systems. Thereunder, separate allocations would be created for the two types of satellite systems within which each would be primary. In addition, each allocation would be subject to its own set of rules optimized for its own distinct system characteristics. This would not preclude the possibility of sharing between non-GSO and GSO satellite systems. With some systems for some applications, sharing may be possible between the two system types. This approach would reverse, for certain bands, the primary status GSO systems currently enjoy in all bands and that GE American and Hughes argue should be retained at the expense of the development of global, broadband interactive non-GSO satellite systems.

¹⁰ As Teledesic noted in its comments, the FCC has employed this approach in other portions of the radio spectrum by requiring Motorola, TRW and others to operate their MSS service links only in non-GSO orbits. Amendment of the Commission's Rules and Policies Pertaining to a Mobile-Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands, 9 FCC Rcd 5936, 5945 (1994).

C. To Be Effective at WRC-95, The FCC Must Conclude the 28 GHz Proceeding Prior To The Start Of The Conference

For the United States to be effective in securing an adequate allocation of spectrum for non-GSO systems at WRC-95, it must conclude its deliberations concerning the domestic use of the 27.5 -29.5 GHz band ("the 28 GHz band") prior to commencement of the Conference. See Rulemaking to Amend Part 1 and 2 of the Commission's Rules to Redesignate the 27.5 - 29.5 GHz Frequency Band and to Establish Rules and Policies for LMDS, 9 FCC Rcd 1394 (1994) ("28 GHz Proceeding"). At the recently concluded CPM-95 ("CPM"), foreign delegations were critical of the United States for even considering a domestic terrestrial allocation in a band globally allocated for satellite services. In fact, because of the pending 28 GHz proceeding and the FCC's consideration of licensing an incompatible terrestrial service in the 28 GHz band, the United States' commitment to satellite services in general was questioned at CPM-95. Any lack of U.S. commitment to preserve existing global satellite allocations may ultimately hamper United States efforts to obtain much needed allocations for non-GSO satellite systems and MSS feeder links at WRC-95. Therefore, it is imperative that the FCC resolve the 28 GHz proceeding prior to WRC-95. As Teledesic and numerous other parties have made clear in response to Amendment of Parts 2 and 15 of the Commission's Rules to Permit Use of Radio Frequencies Above 40 GHz for New Radio Applications, 9 FCC Rcd 7078 (1994) ("40 GHz NPRM"), the optimum resolution of this issue is to designate the 40.5 - 42.5 GHz ("41 GHz") band in lieu of the Ka band for LMDS and preserve the Ka band for FSS. Such an approach will create a win-win solution for all affected parties. See, e.g., NASA Comments; GE American Comments; Hughes Comments; Martin Marietta Space

Group Comments; Rockwell International Corporation Comments; and TRW Inc. Comments
(all filed in ET Docket No. 94-124).

III. CONCLUSION

Based on the foregoing reasons, Teledesic urges the FCC to propose a separate allocation of Ka band spectrum on a primary basis for non-GSO satellite systems at WRC-95. At a minimum, this allocation must accommodate all non-GSO satellite systems currently proposed in the Ka band including the system proposed by Teledesic.

Respectfully Submitted,

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April 14, 1995

CERTIFICATE OF SERVICE

I, Eileen O'Hara, an employee of Akin, Gump, Strauss, Hauer & Feld, L.L.P.,
certify that copies of the foregoing **REPLY COMMENTS** were sent via First Class Mail or
by Hand Delivery on this 14th day of April, 1995, to the following parties:

***William F. Caton**
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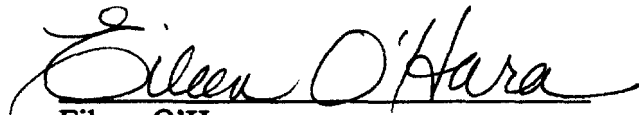
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